

NEW WORLD CNEMOGONINI (COLEOPTERA: CURCULIONIDAE).  
NEW SPECIES, NEW COMBINATIONS AND A  
TYPE SPECIES DESIGNATION

ENZO COLONNELLI

USDA-ARS Biological Control of Weeds Laboratory—Europe, via Gastone Monaldi,  
34-00128 Rome, Italy.

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*Abstract.*—Two new species of weevils from Arizona are described and illustrated: *Auleutes donaldi* and *Orchestomerus whiteheadi*. *Orchestomerus* Dietz is removed from synonymy of *Hypocoeliodes* Faust. New combinations are: *Orchestomerus bicarinatus* (Champion), *O. chiriquensis* (Champion), *O. gibbicollis* (Champion), *O. modestus* (Hustache), *O. phytobioides* (Champion), *O. pleurostigma* (Faust), *O. suturalis* (Hustache), *O. ulkei* Dietz, *O. wickhami* Dietz, all from *Hypocoeliodes*. The type species of *Orchestomerus*, *O. wickhami* Dietz, is designated. *Auleutes marionis* Fall is newly placed in synonymy with *Orchestomerus ulkei*.

*Key Words:* Coleoptera, Curculionidae, Arizona, new combinations, new synonymy

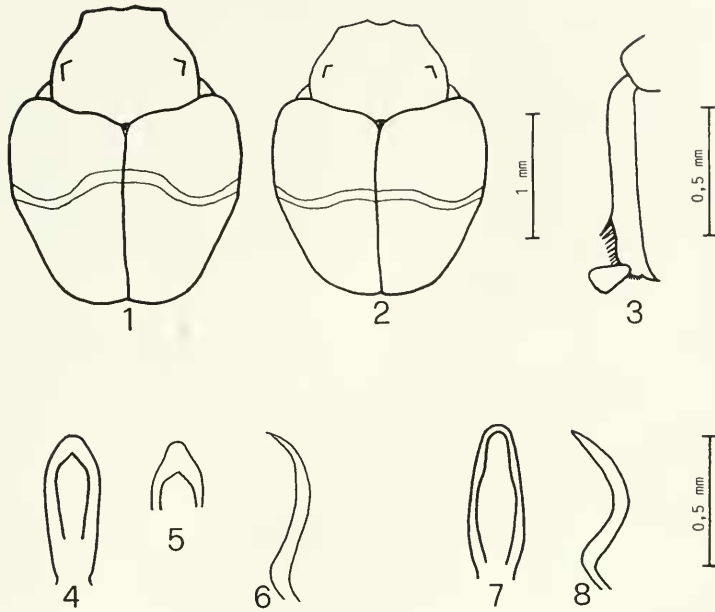
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The tribe Cnemogonini Colonnelli, 1979, comprising 12 genera and 116 species (Colonnelli 1979, O'Brien and Wibmer 1982, Wibmer and O'Brien 1986), is the only tribe in the subfamily Ceutorhynchinae whose distribution is mainly in the New World; the genera *Augustinus* Korotyaev, 1981 (10 species) and *Phytobiomorphus* Wagner, 1937 (2 species), both from east Asia, and the holarctic *Auleutes epilobii* (Paykull, 1800) are not known to occur in the Western Hemisphere. The Cnemogonini are in need of revision, and a paper on the taxonomy of this tribe with descriptions of new genera and new species is in preparation. It is not my intention here to attempt the resolution of the many phylogenetic problems still open; I take today the opportunity to pay homage to the memory of my good colleague and an outstanding taxonomist, Dr. Donald R. Whitehead, naming after him two new species from Arizona, one of which was submitted to me, with a label “?Cra-

*ponius* n. sp.,” by Donald himself some time ago.

*Auleutes donaldi*, NEW SPECIES

Holotype male.—*Length:* 2.67 mm. *Width:* 1.78 mm. Pitchy-brown, somewhat shining; antenna (club excepted), tarsi and tibial mucros reddish brown. Upper surface with sparse intermixed blackish and white semi-erect hairlike scales and white appli- cate narrowly lanceolate scales; the latter form an undulate fascia just before the middle of the elytra and are condensed into a periscutellar spot and a few scattered spots in the posterior half of the elytra. Whitish sparse lanceolate recumbent scales on under surface. Rostrum 0.75 times shorter than prothorax, gently curved, coarsely punctured, and with a trace of smooth longitudinal carina. Antenna short, inserted just before middle of rostrum; scape with apical hook; funicular joint 1 much thicker than others; joints 6 and 7 transverse; club large, acuminate oval. Frons depressed, vertex



Figs. 1-8. *Auleutes donaldi* n. sp., holotype: 1, dorsal view; 3, metatibia; 4, dorsal, 5, apex of aedeagus. *A. instabilis* Champion, male from Costa Rica: 2, dorsal view; 7, dorsal and 8, lateral view of aedeagus. Schematic drawings.

with carina. Prothorax transverse (length/width = 0.8/1), coarsely punctured, strongly constricted anteriorly, widest at bisinuate base, apical margin shallowly incised at middle and with faint trace of obtuse tubercle at each side of incision; disc before middle with two obtuse tubercles separated by shallow furrow; lateral tubercles moderately prominent. Elytra slightly transverse ( $l/w = 0.94/1$ ), widest just behind humeri; humeral and preapical calli not very prominent. Striae formed by large deep punctures, each of which bears a thin recumbent seta. Intervals not much wider than striae, the odd-numbered intervals more raised and wider than the others. Legs slender; femora unarmed, tibia almost straight, meso and metatibia with obvious spinelike mucro; tarsi slender; claws bifid. Rostral channel very deep, base of metasternum emarginate; abdominal segment 5 with shallow central fovea. Aedeagus: Figs. 4, 5 and 6. See also Figs. 1 and 3.

Paratypes.—Males are very similar to the holotype. Females differ in the absence of

tibial mucros and abdominal fovea; their rostrum is moreover much smoother in its apical half. One specimen, slightly immature, has integumental color reddish brown. Length: 2.66–2.70 mm.

Type series.—Holotype ♂: Arizona, Santa Rita Mts., Madera Canyon, Bog Springs Campground, 5000', 24.VIII.1988, coll. R. Baranowsky, by evening sweeping in oak forest. Paratypes: same data as holotype, 1 ♀; Madera Canyon near Bog Springs Campground, 5000', 22.VIII.1988, 4 ♂ and 2 ♀, coll. R. Baranowsky, by sweeping in mixed forest. Holotype and 4 paratypes in the Museum of the University, Lund; 1 paratype in the U.S. National Museum, Washington, D.C.; 2 in the author's collection, Rome.

Remarks.—*Auleutes donaldi* is quite isolated among the species of the genus. It exhibits only a superficial similarity with *A. curvipes* Dietz, 1896 from Texas; the single male specimen at present known of the latter has however the fore tibia curved and bearing a small hook at its inner apical angle, a basal longitudinal sulcus on the pro-

notum, and the white scales on the elytra are not arranged to form a sinuate fascia (Dietz 1896). The new species cannot be confused with any of *Auleutes* described to date; it has only a slight resemblance to the Central American *A. instabilis* Champion, 1907, which has no or a very faint sulcus on the pronotum, odd-numbered intervals not wider than the others, only the male mid tibia with a mucro, and a differently shaped aedeagus (see Figs. 2, 7, 8).

*Orchestomerus whiteheadi*, NEW SPECIES

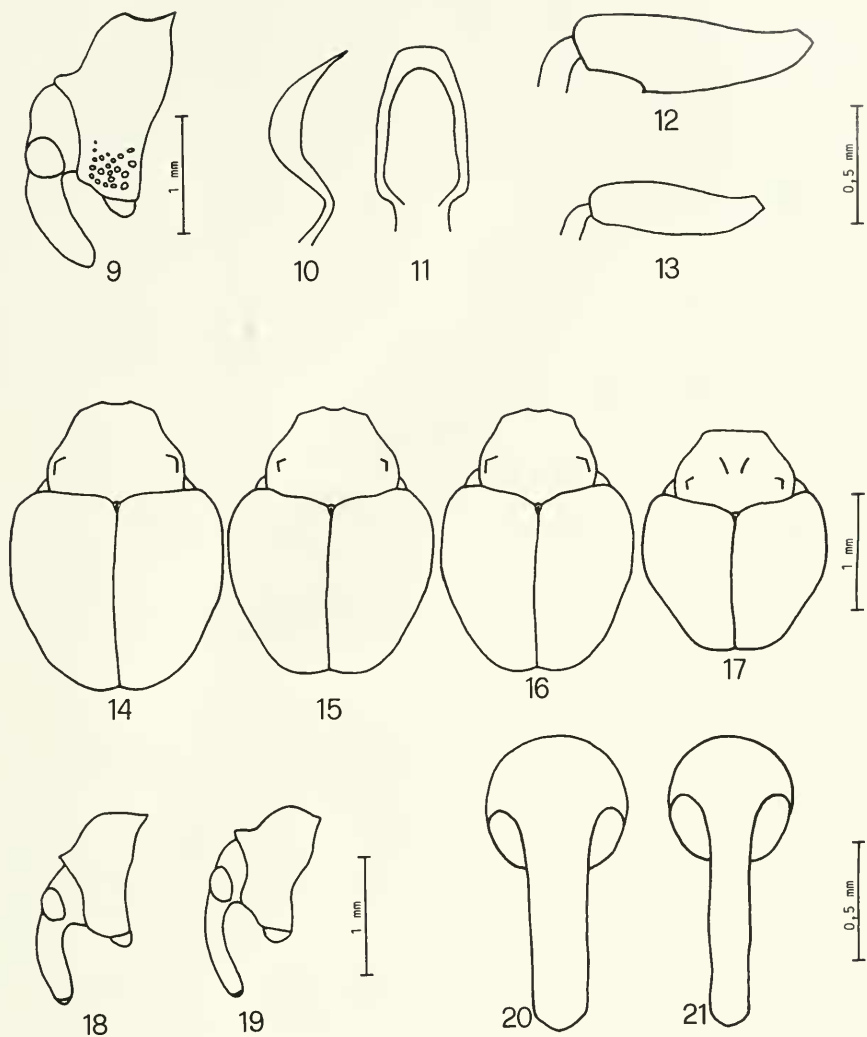
Holotype male.—*Length*: 2.45 mm. *Width*: 1.78 mm. Reddish brown, dull; antenna and tarsi reddish. Upper surface with white and brown recumbent hairlike scales forming very faint irregular fascia on apical half of elytra; velvety brown small round scales are condensed into a periscutellar spot; traces of the rustlike pollen which cover the integument in living specimens are evident. Scattered, yellowish, lanceolate, recumbent scales on under surface. Rostrum about as long as prothorax, slightly curved, coarsely punctured except at apex, and with sharp longitudinal carina. Antenna inserted 0.43 times the length of rostrum from apex of beak; scape with apical spine; joint 1 of funiculus thicker than others; joint 6 round, 7 transverse; club acuminate oval. Frons with shallow depression, vertex finely carinate. Prothorax transverse ( $l/w = 0.75/1$ ), coarsely punctured, constricted in front, widest just before sinuate base, apical margin shallowly incised at middle, the incision limited at each side by obtuse tubercle; disc convex, two central obtuse tubercles separated by longitudinal complete furrow, lateral tubercles prominent. Elytra transverse ( $l/w = 0.875/1$ ), widest just behind prominent humeral calli, preapical tubercles very faint. Striae with deep punctures each bearing a recumbent extremely thin seta. Intervals wider than striae; odd-numbered intervals wider than others; interval 3 with elongate tubercle just before middle; 5 with similar elevation starting just behind base;

tubercle of interval 7 situated in basal third of the elytra. Legs short; femora unarmed; fore and middle tibia angulate at base, middle tibia with obvious apical mucro, very small apical hook of hind tibia very difficult to see. Rostral channel deep on prosternum and mesosternum, metasternal excavation broad and shallow; segment 5 of abdomen with shallow central fovea. Aedeagus: Figs. 22, 23 and 24; see also Fig. 13.

Paratypes.—The general appearance of the males does not differ from that of the holotype. Females differ in their abdomen being uniformly convex and their tibiae lacking apical mucros. The reddish brown integumental color can be more or less dark, independently from the degree of maturation of the specimen. *Length*: 2.44–2.79 mm. See also Figs. 14, 18, 20, 31 and 33.

Type series.—Holotype ♂: Arizona, Santa Rita Mts., 10.VI, coll. Hubbard and Schwarz. Paratypes: same data as holotype, 7 ♂ and 2 ♀; same locality, 20.V, 2 ♂ and 1 ♀; 21.V, 1 ♂; 27.V, 1 ♂; 29.V, 1 ♂; 30.V, 1 ♀; 31.V, 4 ♂ and 2 ♀; 5.VI, 3 ♀; 9.VI, 1 ♂; 14.VI, 1 ♂; 15.VI, 1 ♂ and 1 ♀; 21.VI, 1 ♀, coll. Hubbard and Schwarz. Arizona, Chiricahua Mts., 1.VII, 1 ♀, coll. Hubbard and Schwarz; Chiricahua Mts., 6200', 20.VI.1926, 1 ♂, coll. A. A. Nichol. Arizona, Santa Catalina Mts., 5000', 7.VI.1926, 1 ♂, coll. A. A. Nichol. Holotype and 25 paratypes in the U.S. National Museum, Washington, D.C.; 8 in the author's collection, Rome.

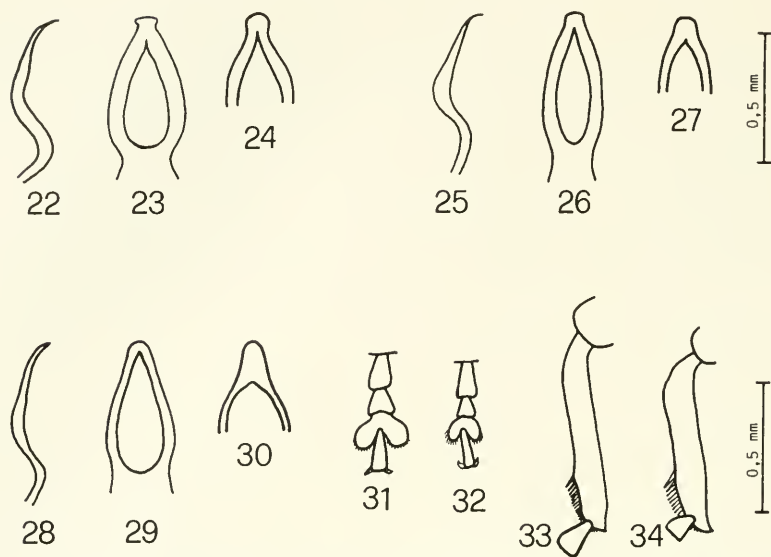
Remarks.—Champion (1907) synonymized *Hypocoeliodes* Faust, 1896, type species *H. coronatus* Faust designated by Champion (1907) (Wibmer and O'Brien 1986) and *Orchestomerus* Dietz, 1896, type species by present designation *O. wickhami* Dietz, 1986. Study of about 3000 specimens and of most of the types of the Cnemogonini (as a part of the revision of the tribe now in progress) revealed that this synonymy is incorrect. Although both genera are undeniably closely related, diagnostic characters for *Orchestomerus* (resurrected name) are



Figs. 9-21. *Hypocoeliodes coronatus* Faust, male from Venezuela: 9, lateral view of pronotum and head; 12, left front femur; 10, lateral and 11, dorsal view of aedeagus. *Orchestomerus whiteheadi* n. sp., holotype: 13, left front femur. *O. whiteheadi*, paratypes: 14, dorsal view; 18, lateral view of pronotum and head; 20, head and rostrum. *O. chiriquensis* Champion from Chiapas, Mexico: 15, dorsal view; 19, lateral view of pronotum and head. *O. ulkei* Dietz from North Carolina: 16, dorsal view; 21, head and rostrum. *O. wickhami* Dietz from Texas: 17, dorsal view. Schematic drawings.

the unarmed femora, the lack of obvious punctures on the sides of the prothorax, and the ligulate apex of the aedeagus (Figs. 13, 18, 19, 22-30). In *Hypocoeliodes* the femora are toothed (in some species very feebly), the sides of the pronotum show obvious deep punctures much larger than the coarse punctation which covers the rest of the prothorax, and the aedeagus exhibits a broadly

truncated apex (Figs. 9-12). In addition, the size of most species of *Hypocoeliodes* is greater and the integumental color is darker than those of *Orchestomerus*. An alphabetic list of all the hitherto described species belonging to *Orchestomerus* (all are new combinations from *Hypocoeliodes*) follows: *O. bicarinatus* (Champion, 1907), *O. chiriquensis* (Champion, 1907), *O. gibbicollis*



Figs. 22-34. *Orchestomerus whiteheadi*, holotype: 22, lateral, 23, dorsal view, 24, apex of aedeagus. *O. whiteheadi*, paratypes: 31, tarsus; 33, male hind tibia. *O. chiriquensis*: 25, lateral, 26, dorsal view, 27, apex of aedeagus; 32, tarsus. *O. ulkei*: 28, lateral, 29, dorsal, 30, apex of aedeagus; 34, male hind tibia. Schematic drawings.

(Champion, 1907), *O. modestus* (Hustache, 1947), *O. phytobioides* (Champion, 1907), *O. pleurostigma* (Faust, 1896), *O. suturalis* (Hustache, 1947), *O. ulkei* Dietz, 1896 (= *Auleutes marionis* Fall, 1913; new synonymy), and *O. wickhami* Dietz, 1896. For the distribution of these species see O'Brien and Wibmer (1982) and Wibmer and O'Brien (1986).

The new species is closely related to the Central American *O. chiriquensis*, from which it can be differentiated by the shorter rostrum, the shallow incision of the fore margin of the pronotum, the broader third joint of the tarsus, and the different shape of the aedeagus (Figs. 14, 15, 18, 19, 22-27). *O. whiteheadi* cannot be confused with any other *Orchestomerus* so far described. In particular it is easily separated from the North American *O. ulkei* by the reddish brown rather than piceous integumental color, the thicker rostrum, the lack of an evident acute mucro at the inner apical angle of the male metatibia, and the different shape of the aedeagus (Figs. 14, 16, 20, 21, 22-24, 28-30, 33, 34). Study of quite a long

series of specimens from the eastern United States revealed that *Auleutes marionis* Fall is a synonym of *O. ulkei* Dietz. Although I have not examined the type specimens (both species were described on the basis of one specimen each), I have no doubt in proposing the synonymy. The compressed antennal joints of the species do not allow easy observation of the separation between the third and fourth joint when the antenna is examined from its compressed side. The other North American species, *O. wickhami*, from Texas is smaller, its integument is reddish (at least on elytra), the recumbent scales of the prothorax and elytra are numerous and white, the inner tubercles of the pronotum are in the form of an oblique carina (Fig. 17), and the male middle and hind tibia have a minute hook at their inner apical angles (Dietz 1896).

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